

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) An injection device comprising:
 - a housing having a proximate end and a distal end, the distal end having an opening therein;
 - a cartridge barrel within the housing, the cartridge barrel having proximate and distal ends;
 - a needle cannula fixed to the distal end of the cartridge barrel, or attachment means for fixing a needle cannula to the distal end;
 - a stopper within the cartridge barrel;
 - a driver coupled to the stopper;
 - a shield coupled to the housing and slidable between a retracted and an extended position;
 - shield driver means activatable to urge the shield from the withdrawn position to the extended position; and
 - sensor means moveable with said driver and in slidable contact with an exterior surface of said cartridge barrel or an interior surface of said housing, the sensor means arranged to detect an end profile of the barrel or housing and to trigger activation of the shield driver means upon detection.
2. (Currently Amended) An injection device according to claim 1, wherein the shield driver means comprises a coil spring within which the cartridge barrel is located.
3. (Currently Amended) An injection device according to claim 2, wherein said ~~the~~ shield driver means comprises ~~comprising~~ a release mechanism for fixing the spring relative to the driver in a compressed state, the release mechanism being actuatable by said sensor means to

release the spring.

4. (Currently Amended) An injection device according to claim 1 ~~any one of the preceding claims~~, wherein the driver is arranged to be manually pushed through the housing, the driver carrying the shield driver means to a shield activation point.

5. (Currently Amended) An injection device according to claim 4 ~~when appended to claim 3~~, wherein the coil spring ~~is being~~ fixed at its proximal end to the driver, and the spring release mechanism ~~fixes~~ fixing the spring to the driver at its distal end.

6. (Currently Amended) An injection device according to claim 1 ~~any one of claims 1 to 3~~, wherein the shield driver means additionally provides ~~providing~~ a driving force for said driver.

7. (Currently Amended) An injection device according to claim 6 ~~when appended to claim 3~~, wherein the coil spring ~~is being~~ fixed at its proximal end to the housing, and the spring release mechanism ~~fixes~~ fixing the spring to the driver at its distal end.

8. (Currently Amended) An injection device according to claim 1 ~~any one of the preceding claims~~, wherein the sensor means comprises ~~comprising~~ one or more deformable arms attached or formed integrally with the driver.

9. (Currently Amended) An injection device according to claim 8, ~~the or~~ wherein each arm ~~being is~~ biased against the exterior surface of the cartridge barrel and arranged to follow the surface profile of the barrel.

10. (Currently Amended) An injection device according to claim 8 ~~or 9 when appended to claim 3~~, wherein the release mechanism comprises ~~comprising~~ a catch provided on a radially outer surface of ~~the or~~ each deformable arm.

11. (Currently Amended) An injection device according to claim 1 ~~any one of the preceding claims~~, wherein said driver and said sensor means are being a single molded plastics element.

12. (Currently Amended) An injection device comprising:
a cartridge barrel, said barrel arranged to contain a stopper and fluid therein and wherein said barrel has a second open end and a second end having a radial flange adjacent to the second end; therein;

a needle cannula having a sharp distal end and a second open end, the fluid being in communication with said needle second end, ~~said barrel having a second open end and a second end having a radial flange adjacent to the second end;~~

a housing surrounding said barrel, said housing having a distal open end adjacent to the needle and a proximate end having a flange receiving the radial flange of the barrel;

a shield releaseably retained ~~retained~~ by the housing, said housing and said shield arranged in a sliding relationship with the shield positioned primarily within the housing until release;

a driver, said driver positioned partially within said housing, said driver equipped with at least one deformable side arm sensing the end of the barrel, said driver slidingly located within said housing for moving the stopper forward; and

a biasing spring, said biasing spring further adapted to bias the shield to cover ~~shield~~ the needle after the driver sensor detects the end of the barrel.

13. (Currently Amended) The injection device ~~safety syringe~~ of claim 12, wherein the biasing spring is carried by the driver and is released to bias the shield when the end of said barrel is reached.

14. (Currently Amended) The injection device ~~safety syringe~~ of claim 12 ~~or 13~~, wherein the driver has two sensor elements to detect the end of the barrel.

15. (Currently Amended) The injection device ~~safety syringe~~ of claim 12 ~~any one of claims~~

~~12 to 14~~, wherein said ~~the~~ housing and shield are equipped with latches.

16. (Currently Amended) The injection device ~~safety-syringe~~ of claim 15, wherein said latches prevent premature release of the shield.

17. (Currently Amended) The injection device ~~safety-syringe~~ of claim 15, wherein said ~~the~~ latches retain the shield in the needle shielded position.

18. (Currently Amended) The injection device ~~safety-syringe~~ of claim 1, wherein said ~~the~~ driver is deformable during assembly.